

**Notice of Allowability**

Application No.

10/605,637

Applicant(s)

LARSSON ET AL.

Examiner

CUONG H. NGUYEN

Art Unit

3661

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/17/2007 (the amendment).
2. ☒ The allowed claim(s) is/are 1-6,8-23, they are renumbered as claims 1-22; formal drawings are accepted.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

/CUONG H. NGUYEN/  
Primary Examiner, Art Unit 3661

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### **DETAILED ACTION**

1. This Office Action is the answer to the communication filed on 12/17/2007. Group I covers claims 1-23 are elected for examination without traverse; claims 67-109 are withdrawn, claims 7, and 24-66 are cancelled.

#### ***Priority***

2. Applicants claim a provisional priority of 10/15/2002.

#### ***Drawings***

3. Formal drawings are accepted.

#### ***Examiner's amendment:***

4. An examiner's amendment to the record appears below. Non-elected claims 67-109 are canceled for this allowability. Should the changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

- Claims 67-109 are now canceled.

#### ***Allowable Subject Matter & Reason for Allowance***

5. Independent claim 1 is considered non-obvious over closest references of Smyth (US Pat. 6,120,461), and Liang et al. (US Pat. 5,570,698) because this pending invention teaches a method for hierarchically analyzing ocular then head orientation characteristics of a driver of a vehicle in order to identify locations of driver interest while driving the vehicle, said method comprising:

- detecting, utilizing an optical sensor, and quantifying a position and orientation of a presently driving driver's head relative to an interior space within a passenger compartment of a

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vehicle and also simultaneously detecting, when visible to the sensor, driver ocular orientation;

- providing a reference-base position of a reference driver's head relative to the interior space within the passenger compartment of the vehicle together with probable locations of driver interest correlated to different (1) ocular orientations and (2) head orientations relative the reference-base position of the reference driver's head; and
- normalizing said quantification of the position of the driver's head to said reference-base position and hierarchically comparing the quantified (1) driver ocular orientation when available, or the quantified (2) driver head orientation if quantified driver ocular orientation is not available, against the correlated probable locations of driver interest relative the reference driver's head and thereby enabling deducement of a corresponding probable location of driver interest based on the quantified orientation of either (1) the driver's ocular orientation or (2) the driver head orientation.

6. Dependent claims 2-6 and 8-23 are patentable because they are dependent on claim 1.

#### *Conclusion*

7. Claims 1-6, and 8-23 are allowed; they are renumbered as claims 1-22.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759 (email address: cuong.nguyen@uspto.gov). The examiner can normally be reached on 9:30 am - 5:30 pm Mon. – Tues., and Thurs. – Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the organization where this application is assigned is 571-273-6956.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/CUONG H. NGUYEN/  
Primary Examiner  
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